

ABSTRACT

AIM OF THE STUDY

To find out the sensitivity of uterine artery in the prediction of pregnancy induced hypertension and intrauterine growth restriction at 20-22 weeks of gestation thereby to follow up the at risk patients and to improve perinatal outcome.

MATERIALS AND MATERIALS

Study was conducted at Tirunelveli Medical College Hospital from June 2013 to August 2014 in the department of Obstetrics and Gynaecology and in the department of Radiology.

Selection of cases about 200 antenatal mothers were selected and they were separated as

1. High risk (Group I)
2. Low risk (Group II)

High risk cases include 100 antenatal mothers (multi) with previous history of hypertension, FGR, IUD at 20-22 weeks of gestation.

Low risk cases include 100 antenatal mothers (primi/multi) with no prior history of hypertension, FGR, IUD at 20-22 weeks of gestation.

METHOD OF STUDY

All antenatal mothers were registered in Antenatal OP. Doppler characters studied for prediction of PIH and IUGR was bilateral diastolic notch. AN mother was placed in a supine and slightly left lateral position. The frequency of doppler used is 3.5-5MHZ. Doppler measurement is done at a point just distal to the crossover with the iliac artery before uterine artery divides into arcuate arteries.

RESULTS

In Group I, out of 97 cases, bilateral notch was noted in 33 cases.

BILATERAL NOTCH

- * Persistence of notch was noted in 33 cases of multigravida.
- * There is a significant association between bilateral notch and parity.
- * Two cases had HT, 15 cases had FGR.
- * Insignificant association was noted between bilateral notch and HT.
- * Out of 33 cases, FGR was noticed in 15 cases.
- * Significant association was noted between notch and FGR.
- * Out of 33 cases, 6 cases had both HT and FGR.
- * Significant association was noted between notch and HT & FGR.

- * Out of 33 cases, 10 babies were delivered prematurely, 14 cases had caesarean delivery, 19 cases had vaginal delivery.
- * Insignificant association between notch with both mode of delivery, HT& gestational age at delivery.
- * Significant association noted between bilateral notch and perinatal outcome.

GROUP II (Low risk)

BILATERAL NOTCH

Out of 98 cases, 12 cases had bilateral notch.

- * 8 cases were primi, 4 cases were multigravida.
- * Significant association was noted between notch and parity.
More in case of primigravida (Low risk)
- * Out of 12 cases, 2 cases had FGR, 1 case had HT, 2 cases had both HT & FGR.
- * Significant associated with notch and both HT & FGR.
- * Insignificant association observed between notch & FGR, notch & HT.
- * Insignificant association was noted between bilateral notch and mode of delivery, gestational age at delivery.

- * Significant association between notch and perinatal outcome.

Increased perinatal abnormality was associated with bilateral notch.

CONCLUSION

- In both Group I &II, bilateral notch was associated with poor prognosis.
- It is better to do Uterine artery doppler study,along with Target scan at 20-22 weeks of gestation , thereby both anomalies of fetus and risk of PIH &FGR can be predicted in the same visit.
- In both Group I &II, those cases with bilateral notch require more fetal surveillance and timely intervention compared to unilateral and absent notch.
- Cases with absent notch require only routine checkup and not frequent checkup.

KEYWORDS : Hypertensive disorders, Fetal growth restriction, Uterine artery Doppler, Small for gestational age, Bilateral diastolic notch, abnormal perinatal outcome.